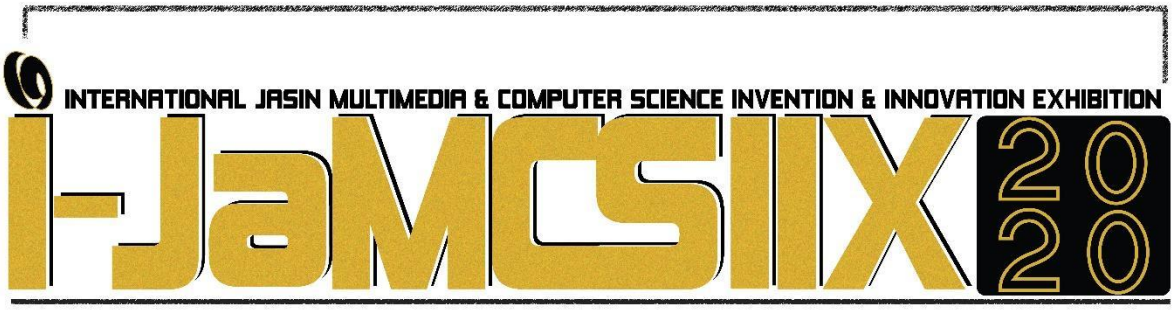

E-Application System For Sabk Maahad Ehyak Diniah Islamiah

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ABSTRACT

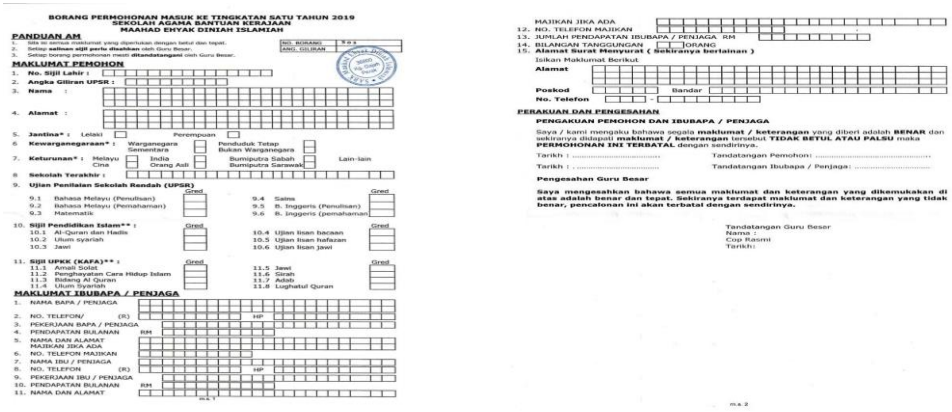
Sekolah Agama Bantuan Kerajaan (SABK) Maahad Ehyak Diniah Islamiah is a boarding school with around 500 students located in Perak. The school processes around 350 new application forms for Form 1 intake annually. However, the application process is tedious for both parents and teachers because it is done manually. The parents will come to the school office to get the application form, fill out the form and come back to the school to return the form including attachment of relevant documents. The teachers need to go through the application form one by one to shortlist the candidates that fulfill the academic requirements and then transfer the details from the form into Microsoft Excel. In view of the situation, an online application system has been developed to tackle the problem by using the Waterfall Model as the methodology, PHP with Laravel framework as the language and MySQL as the database. The system allows parents to apply online and the system checks the academic qualification automatically, provides the application status to the applicants whether qualified for a qualification test or not and lists the shortlisted candidates. The system relieves the parents from having to travel a few times to the school and relieves the teachers from the tedious and meticulous tasks of checking the candidates' academic background. However, several future works need to be done, with the most important is to provide features to upload attachments and to generate automatic offer letters.

KEYWORDS: e-application system, manual admission process, online application, reduce time and costs

1 INTRODUCTION

Sekolah Agama Bantuan Kerajaan (SABK) Maahad Ehyak Diniah Islamiah is a government funded school. The school is one of the best SABK in Perak. In 2012, it was listed to be a cluster school and because of that, the number of applicants keeps on increasing. However, the growing application volume for Form 1 enrollment has posed a significant challenge to the school for the past years. The current school admission process cannot keep up well with the large number of applications because the process is done manually [1].

The admission process involves two major parties: the school administration and the applicants. On the administration part, handling the application forms consumes a lot of time and work hours. This is because the selection process requires meticulous checking if the applicants meet the admission requirements based on Ujian Penilaian Sekolah Rendah(UPSR), Sijil Pendidikan Islam and Sijil UPKK (KAFA) and also verifying the authenticity of these certificates. The staff also need to key in each details of the applicants taken from the application form into a Microsoft Excel template after the minimum requirement filtering process takes place. **Fig. 1** shows the current application form used in the manual system.



BORANG PERMOHONAN MASUK KE TINGKATAN SATU TAHUN 2019
SEKOLAH AGAMA BANTUAN KERAJAAN
MAAHAD EHYAK DINIAH ISLAMIAH

PANDUAN AM

MAKLUMAT PEMOHON

1. No. Sijil Lahir :
2. Angka Giliran UPSR :
3. Nama :
4. Alamat :
5. Jantina* : Lelaki Perempuan
6. Kewarganegaraan* : Warganegara Penduduk Tetap Sementara Bukan Warganegara
7. Keturunan* : Melayu India Bumiputra Sabah Lain-lain Cina Orang Asli Bumiputra Sarawak
8. Sekolah Terakhir :
9. Ujian Penilaian Sekolah Rendah (UPSR)
9.1 Bahasa Melayu (Penulisan) 9.4 Sains
9.2 Bahasa Melayu (Pemahaman) 9.5 B. Inggeris (Penulisan)
9.3 Matematik 9.6 B. Inggeris (pemahaman)
10. Sijil Pendidikan Islam** :
10.1 Al-Quran dan Hadis 10.4 Ujian lisan bacaan
10.2 Ulum syariah 10.5 Ujian lisan hafazan
10.3 Jawi 10.6 Ujian lisan jawi
11. Sijil UPKK (KAFA)** :
11.1 Amali Solat 11.5 Jawi
11.2 Penghayatan Cara Hidup Islam 11.6 Sirah
11.3 Tilawah Al-Quran 11.7 Adab
11.4 Ulum Al-Quran 11.8 Lughatul Quran

MAKLUMAT IBUBAPA / PENJAGA

1. NAMA BAPA / PENJAGA
2. NO. TELEFON/ (R) HP
3. PEKERJAAN BAPA / PENJAGA
4. PENDAPATAN BULANAN RM
5. NAMA DAN ALAMAT MAJIKAN JIKA ADA
6. NO. TELEFON MAJIKAN
7. NAMA IBU / PENJAGA
8. NO. TELEFON (R) HP
9. PEKERJAAN IBU / PENJAGA
10. PENDAPATAN BULANAN RM
11. NAMA DAN ALAMAT

MAJIKAN JIKA ADA
12. NO. TELEFON MAJIKAN
13. JUMLAH PENDAPATAN IBUBAPA / PENJAGA RM
14. BILANGAN TANGGUNGAN ORANG
15. Alamat Surat Menyurat (sekiranya berlainan)
Isikan Maklumat Berikut
Alamat
Poskod Bandar
No. Telefon

PERAKUAN DAN PENGESAHAN

PENGAKUAN PEMOHON DAN IBUBAPA / PENJAGA

Saya / kami mengaku bahawa segala maklumat / keterangan yang diberi adalah BENAR dan sekiranya didapati maklumat / keterangan tersebut TIDAK BETUL ATAU PALSU maka PERMOHONAN INI TERBATAL dengan sendirinya.

Tarikh : ..... Tandatangan Pemohon: .....
Tarikh : ..... Tandatangan Ibubapa / Penjaga: .....

Pengesahan Guru Besar

Saya mengesahkan bahawa semua maklumat dan keterangan yang dikemukakan di atas adalah benar dan tepat. Sekiranya terdapat maklumat dan keterangan yang tidak benar, pencalonan ini akan terbatal dengan sendirinya.

Tandatangan Guru Besar
Nama :
Cop Rasmi
Tarikh:

Fig. 1 Admission Application Form (*Source*: SABK Maahad Ehyak Diniah Islamiah)

The current process also prones to issues such as the application forms being misplaced and the school received the forms after the due date. The process also incurs higher cost for office supply such as papers, envelopes and postages because the school sends out two letters to the applicants; one letter is for the applicants that are eligible to sit for the qualification examination, the other is the offer letter for the applicants that pass the qualification examination with good results.

On the applicants part, the admission process is less user friendly. First and foremost is, in order to acquire the application forms, parents have to come to the school. This is really inconvenient to the parents because not only do they have to make time to visit the school but also to make it within office hours. Besides, there are also applicants that live far from the school such as in other towns and states. Thus, getting the application forms from school and to return the completed forms back to the school can take considerable time and cost. Based on the problems discussed, a solution is deemed necessary to help ease the school administrators in processing the admission application form while at the same time ease the process that the applicants need to go through in applying for the school. Therefore, an e-Application web based system has been proposed and developed which utilizes today's current web based technology. The system transforms most of the processes that are done manually into web based computerized systems.

The system is expected to give both users a more user friendly and engaging experience. It is accessible to the applicants and the school administrators anytime and anywhere they are. This can reduce the time and cost for both parties involved. As a whole, the system can help both parties to be more organized, efficient and more productive while at the same time, reduce cost and time [2].

2 OBJECTIVE

The project has three objectives. The first objective is to gather and analyse the system requirements for the system. The next objective is to design and implement a web-based system by utilizing the gathered requirement and finally the development part came in.

3 SIGNIFICANCE

The project is significant to two parties as described below:

a) The School (Administration Staff and Teachers)

The main impact of the system goes towards the school especially to the administration staff and teachers. The system is expected to significantly reduce the time taken in processing the application form. The staff do not need to enter the details of each applicant. Besides, the system will filter the academic qualification of the candidates automatically. The school also can cut down cost on the use of papers and postage as the information of the application is announced in the system.

b) The Applicants

The main benefit towards the applicants is that the applicants do not need to come to the school in order to pick up the application form and to return the completed form back to the school by hand or via postage. This impact will be more beneficial towards the applicants that live far from the school such as in other towns or other states. The system allows applicants to apply online anytime and anywhere they are. Thus, the process of applying for the school will be more convenient and user friendly as the applicants just need to apply and attach the important document in the system and wait for the result. This helps to reduce the cost of time and money of the applicants.

4 METHODOLOGY/TECHNIQUE

The e-Application web based system is developed by implementing the Waterfall Model. There are six phases in the Waterfall Model [3]. The first phase starts with requirement gathering. An interview was conducted with En Izzuddin Bin Fakharudin, the principal of the school to collect as much data and requirements related to the problem. Table 1 shows the interview questions.

Table 1: Interview Quistiones

NO	QUESTIONS
1.	How the intake of the students was made?
2.	How do the students from outside Perak apply for the school?
3.	Annually, how many students apply for the school?
4.	What is the minimum requirement to apply for the school?
5.	How many students usually passed the qualification examination?
6.	How does the qualification examination be graded?
7.	Who will manage the application form?
8.	How many staff are involved?

The data and findings from the interview are then used in the analysis phase. A Use Case Diagram (UCD) is created as shown in Fig. 2.

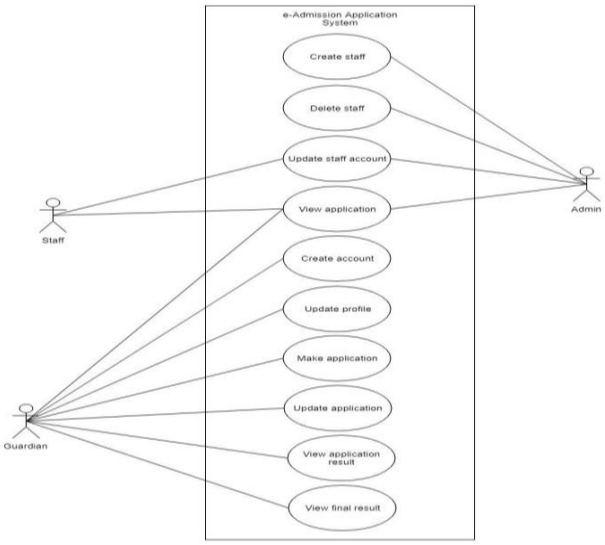


Fig. 2 The UCD for the system.

The next phase is to design the web-based system. Design specifications such as the Entity Relational Diagram (ERD) and Software Design Document (SDD) are produced. In the implementation phase, all the requirements and design specifications are implemented into coding. Software Requirement Specification (SRS) and Software Design Document (SDD) are the main references to make sure this phase fulfills the stakeholder requirements and achieves the third objective of this project. For the project, PHP with Model, View, Controller (MVC) concept which is considered as three-layer system architecture is used. The code is edited using PHPStorm software. As for the database, MySQL is used through phpMyAdmin as the client server to handle the MySQL over the web. Functional Testing is the final step involved in this project. All test cases from the UCD such as créate staff,and delete staff are working properly.

5 RESULT

The result and finding focus mainly on the deliverable for each development phase which is the requirement gathering, analysis, design and implementation phase. The findings show the deliverables of each phase have achieved the objectives of the project. Features of the system are tested by the developer and the supervisor and it shows that all functionalities and processing coded in the implementation phase work correctly.

6 CONCLUSION

The finished system prototype has demonstrated that it has achieved all the project objectives mentioned above. The system prototype is built based on the school requirements. The successful testing of the features and processing show that it has high potential to be deployed to the school.

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